



IPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Shinichi HIROSE et al. : Attorney Docket No. 2006\_1477A  
Serial No. 10/591,587 : Group Art Unit **Not Yet Assigned**  
Filed September 5, 2006 : Examiner **Not Yet Assigned**  
EPILEPSY MODEL ANIMAL (CHRNA4:S284L)

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☒ each U.S. Patent and U.S. Patent application publication;
- ☐ each reference previously cited in the international application PCT/\_\_\_\_\_; and/or
- ☐ each reference previously cited in prior parent application Serial No. \_\_\_\_\_.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, **or**

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

THE COMMISSIONER IS AUTHORIZED  
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**and thus no certification and/or fee is required.**

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and**

**the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.


3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.

4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
  - b. ☐ a foreign patent office search report (in the English language) submitted herewith,
  - c. ☐ the concise explanation contained in the specification of the present application at page,
  - d. ☐ the concise explanation set forth in the attached English language abstract,
  - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☐ A foreign patent office search report citing one or more of the references is enclosed.
6. ☐ Statement Under 37 CFR 1.704(d)

Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign Patent Office in a counterpart application, and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

Shinichi HIROSE et al.

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December 4, 2006

## INFORMATION DISCLOSURE STATEMENT

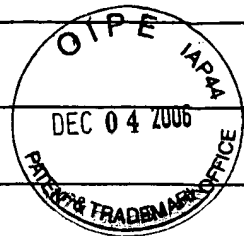
FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: December 4, 2006

ATTY DOCKET NO.  
2006\_1477ASERIAL NO.  
10/591,587APPLICANT  
Shinichi HIROSE et al.FILING DATE  
September 5, 2006

GROUP



## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AG						
	AH						
	AI						
	AJ						
	AK						

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AL	R. Saito et al., "Characteristics of transgenic rats harboring a mutation underlying human autosomal dominant nocturnal frontal lobe epilepsy (ADNFLE)", J. Pharmacol. Sci., Vol. 23, No. 94, Suppl. I, p. 102, February 2004.
	AM	S. Hirose et al., "A novel mutation of CHRNA4 responsible for autosomal dominant nocturnal frontal lobe epilepsy", Neurology, Vol. 53, No. 8, pp. 1749-1753, November 1999.
	AN	A. Rozycka et al., "Evidence for S284L mutation of the CHRNA4 in a white family with autosomal dominant nocturnal frontal lobe epilepsy", Epilepsia, Vol. 44, No. 8, pp. 1113-1117, August 2003.
	AO	N. Matsushima et al., "Mutation (Ser284Leu) of neuronal nicotinic acetylcholine receptor $\alpha 4$ subunit associated with frontal lobe epilepsy causes faster desensitization of the rat receptor expressed in oocytes", Epilepsy Research, Vol. 48, pp. 181-186, 2002.
	AP	E. Tribollet et al., "Role of neuronal nicotinic receptors in the transmission of processing of information in neurons of the central nervous system", Pharmacology, Biochemistry and Behavior, Vol. 70, pp. 457-466, 2001.

EXAMINER

DATE CONSIDERED